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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/805,347	03/22/2004	Tsung Mien Liang	BHT-3117-189	8995

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EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1772

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/805,347

Applicant(s)

LIANG, TSUNG MIEN

Examiner

Catherine Simone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/22/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawn Objections

1. The objection to the drawings of record in the last Office Action mailed 11/16/05, Page 2, Paragraph #1 has been withdrawn due to the Applicant's amendment filed 4/17/06.

Withdrawn Rejections

2. The 35 U.S.C. 103 rejection of claims 1-5 over Sadlo et al. in view of Suzuki et al. of record in the last Office Action mailed 11/16/05, Pages 2-4, Paragraph #3 has been withdrawn due to the Applicant's amendment filed 4/17/06.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6, 7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sadlo et al. (US 5,670,223) in view of Knorr (US 4,871,599).

Regarding claims 6, 7 and 9, Sadlo et al. teaches a support core ribbon for a cold-shrink tube, the cold shrink tube including an elastomeric tube and a tubular support core deposited in the elastomeric tube for supporting the elastomeric tube, the tubular support core formed by the support core ribbon being wound helically (see col. 1, lines 5-7 and col. 2, lines 17-38), the

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support core ribbon comprising a continual ribbon being a flat body (Fig. 4, #30) having a first edge (Figs. 4 and 5, #34) having a first straight groove (Figs. 4 and 5, #42) and a first projecting portion (Figs. 4 and 5, #38) located on a top surface of the continual ribbon; a second edge (Figs. 4 and 5, #32) connected to the first edge and having a second straight groove (Figs. 4 and 5, #40) and a second projecting portion (Figs. 4 and 5, #36) located on a bottom surface of the continual ribbon, the first edge (Fig. 5, #34) is connected to the second edge (Fig. 5, #32) by inserting the first projecting portion (Fig. 5, #38) into the second straight groove (Fig. 5, #40) and the second projecting portion (Fig. 5, #36) into the first straight groove (Fig. 5, #42), and the first edge and the second edge are fixed together by ultrasonically welding (see col. 1, line 64). However, Sadlo et al. fails to teach at least one single V-shaped groove located between the first and second edges and a plurality of through holes spaced apart an equal distance along a length of the at least one groove. Knorr teaches that it is old and well known in the art to have a support core ribbon including at least one single V-shaped groove (Fig. 5 and 6, #63 and Fig. 7, #763) located between its first and the second edges and a plurality of through holes (Fig. 7, #723 and #725) spaced apart an equal distance along a length of the at least one groove for the purpose of allowing one end portion of the support core ribbon to be separated from the support core ribbon into a strip extending from one end of the support core ribbon through the support core ribbon and out of the other end thereof where it may be manually grasped and allowing the support core ribbon to be manually unwound by pulling on the end portion.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the support core ribbon in Sadlo et al. to include at least one single V-shaped groove located between its first and second edges and have a

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plurality of through holes spaced apart an equal distance along a length of the at least one groove as suggested by Knorr in order to allow the one end portion of the support core ribbon to be separated from the support core ribbon into a strip extending from one end of the support core ribbon through the support core ribbon and out of the other end thereof where it may be manually grasped and allow the support core ribbon to be manually unwound by pulling on the end portion.

Regarding claims 10 and 11, Sadlo et al. and Knorr teach the support core ribbon as shown above except for the plurality of through holes being a plurality of square holes extending through the flat body and each of the plurality of square holes having two opposing corners aligning with the bottom of the at least one groove. Normally, it is to be expected that a change in shape of the through holes would be an unpatentable modification. Under some circumstances, however, changes such as shape may impart patentability to a product if the particular shape claimed produces a new and unexpected result which is different in kind and not merely in degree from the results of the prior art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to change the shape of the through holes in Sadlo et al. be of a square shape. One skilled in the art would have been motivated to do so in order to form a support core ribbon, since it has been held that the change in form or shape of the through holes would be an unpatentable modification in absence of showing unexpected results. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have each of the plurality of square holes in Sadlo et al. have two opposing corners aligning with the bottom of the at least one groove, since it has been held that a change in the hole pattern would be an unpatentable modification in absence of showing

unexpected results and it has been held to be within the general skill of a worker in the art to select a known pattern on the basis of its suitability for the intended use as a matter of obvious design choice.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sadlo et al. (US 5,670,223) in view of Knorr (US 4,871,599) and further in view of Boegel et al. (US 2003/0152738 A1).

As shown above, Sadlo et al. teaches the support core ribbon except for at least one V-shaped groove being located between the first and the second edges of the support core ribbon and a plurality of through holes being spaced apart an equal distance along a length of the at least one groove. Knorr teaches that it is old and well known in the art to have a support core ribbon including at least one single V-shaped groove (Fig. 5 and 6, #63 and Fig. 7, #763) located between its first and the second edges and a plurality of through holes (Fig. 7, #723 and #725) spaced apart an equal distance along a length of the at least one groove for the purpose of allowing one end portion of the support core ribbon to be separated from the support core ribbon into a strip extending from one end of the support core ribbon through the support core ribbon and out of the other end thereof where it may be manually grasped and allowing the support core ribbon to be manually unwound by pulling on the end portion. Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the support core ribbon in Sadlo et al. to include at least one single V-shaped groove located between its first and second edges and have a plurality of through holes spaced apart an equal distance along a length of the at least one groove as suggested by Knorr in order to allow the one end portion of the support core ribbon to be separated from the support core ribbon into a

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strip extending from one end of the support core ribbon through the support core ribbon and out of the other end thereof where it may be manually grasped and allow the support core ribbon to be manually unwound by pulling on the end portion.

Furthermore, Sadlo et al. and Knorr fail to teach the at least one groove including two V-shaped grooves, a first groove of the two V-shaped grooves being located on the top surface of the continual ribbon and a second groove of the two V-shaped grooves being located on the bottom surface of the continual ribbon aligning with the first groove. Boegel et al. teaches that it is old and well-known in the art to have a groove including two V-shaped grooves wherein the first groove of the two V-shaped grooves is located on the top surface of the web of material and the second groove of the two V-shaped grooves is located on the bottom surface of the web of material aligning with the first groove for the purpose of providing regions of reduced thickness to facilitate separation. Thus, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to have modified the support core ribbon in Sadlo et al. to have the at least one groove including two V-shaped grooves wherein the first groove of the two V-shaped grooves is located on the top surface of the continual ribbon and the second groove of the two V-shaped grooves is located on the bottom surface of the continual ribbon aligning with the first groove as suggested by Boegel et al. in order to provide regions of reduced thickness in the ribbon to facilitate separation thereof.

Response to Arguments

6. Applicant's arguments with respect to claims 6-11 have been considered but are moot in view of the new grounds of rejection.

Conclusion

7. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571) 272-1501. The examiner can normally be reached from 9:30-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CAS

Catherine A. Simone
Examiner
Art Unit 1772
July 3, 2006

Harold Pyon
HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

7/5/06